UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,445	07/17/2003	Menachem Levanoni	YOR920000590US2	9176

21254	7590	12/09/2004

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EXAMINER
PHAM, HUNG Q

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/620,445	LEVANONI ET AL.
	Examiner	Art Unit	
	HUNG Q PHAM	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*17 July 2003*</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____.

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date <u>*07/17/2003*</u>.

4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Priority

1.   Acknowledgment is made of a claim for domestic priority under 35 U.S.C §

120.

Information Disclosure Statement

2.   The information disclosure statement (IDS) submitted on 07/17/2003 was

filed before the mailing date of the first Office Action. The submission is in compliance

with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is

being considered by the examiner.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this Office

action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   **Claims 1-7, 9, 10-15 and 18 are rejected under 35 U.S.C. 102(b) as**

being anticipated by Renslo et al. [USP 5,446,890].

Regarding claims 1, 9 and 10, Renslo discloses a computer method of predicting product demand. As illustrated at FIG. 19, database 26 holds all the necessary product and forecast information as well as order history and forecast result (FIG. 19, Lines 7-13). As seen, order history as *individual demand history*, and product information as *product stockpile information* are stored in the tables of relational database 26. In different words, the tables of relational database 26 indicates the steps of providing *a demand database comprising a compendium of individual demand history*, and *a supply database comprising a compendium of at least one of product stockpile management solutions, product stockpile information, and product stockpile diagnostics*. In order to predict product demand, knowledge base as *a data mining technique* is used (Col. 3, Lines 45-63). To feed the expert system with information, data is automatically queried from the database as *demand and supply databases* (Col. 5, Lines 60-61), which includes actual product order information, e.g., product #, product option, distribution market, unit volumes-current, unit volumes-historical, net revenue as *supply solution*, to produce forecasting results as *an output data stream* (Col. 3, Line 59-Col. 4, Line 3). Forecasting result is an analysis of future demands for individual products or variously grouped products as *demand problem* (Col. 1, Line 66-Col. 2, Line 10). In different words, the technique as discussed performs the claimed *employing a data mining technique for interrogating said demand and supply databases for generating an output data stream, said output data stream correlating demand problem with supply solution*.

Regarding claim 2, Renslo teaches all the claim subject matters as discussed above with respect to claim 1, Renslo further discloses the step of *updating the demand database* (Col. 4, Lines 7-28).

Regarding claim 3, Renslo teaches all the claim subject matters as discussed above with respect to claim 2, Renslo further discloses *the updating the demand database comprises considering the results of employing a data mining technique* (Col. 4, Lines 7-28).

Regarding claim 4, Renslo teaches all the claim subject matters as discussed above with respect to claim 1, Renslo further discloses the step of *updating the supply database* (Col. 4, Lines 7-28).

Regarding claim 5, Renslo teaches all the claim subject matters as discussed above with respect to claim 4, Renslo further discloses *the updating the supply database comprises considering the effects of the employing the data mining technique on the demand database* (Col. 3, Lines 62-68, and Col. 4, Lines 1-5).

Regarding claim 6, Renslo teaches all the claim subject matters as discussed above with respect to claim 2, Renslo further discloses the step of *refining an employed data mining technique in cognizance of pattern changes embedded in each database as a consequence of updating the demand database* (Col. 7, Lines 47-50, and Col. 8, Lines 40-55).

Regarding claim 7, Renslo teaches all the claim subject matters as discussed

above with respect to claim 4, Renslo further discloses the step of *refining an employed*

data mining technique in cognizance of pattern changes embedded in each database as a

consequence of updating the supply database (Col. 7, Lines 47-50, and Col. 8, Lines 40-

55).

Regarding claim 11, Renslo teaches all the claim subject matters as discussed

above with respect to claim 9, Renslo further discloses the step of *updating the supply*

database to include the effects of employing the data mining technique on the demand

database (Col. 3, Lines 62-68, and Col. 4, Lines 1-5).

Regarding claim 12, Renslo teaches all the claim subject matters as discussed

above with respect to claim 9, Renslo further discloses the step of *refining the employed*

data mining technique by analyzing pattern changes embedded in each database as a

consequence of an updating of the demand database (Col. 7, Lines 47-50, and Col. 8, Lines

40-55).

Regarding claim 13, Renslo discloses a computer method of predicting product

demand. As illustrated at FIG. 19, database 26 holds all the necessary product and

forecast information as well as order history and forecast result (FIG. 19, Lines 7-13).

As seen, order history as *individual demand history*, and product information as *product*

stockpile resources are stored in the tables of relational database 26. In different words,

the tables of relational database 26 indicates the steps of providing *a demand database*

comprising a individual demand history, and *a supply database comprising product stockpile*

resources. In order to predict product demand, knowledge base as *a data mining module*

is used (Col. 3, Lines 45-63). To feed the expert system with information, data is

automatically queried from the database as *demand and supply databases* (Col. 5, Lines

60-61), which includes actual product order information, e.g., product #, product option,

distribution market, unit volumes-current, unit volumes-historical, net revenue as *supply*

solutions, to produce forecasting results as *an output data stream* (Col. 3, Line 59-Col. 4,

Line 3). Forecasting result is an analysis of future demands for individual products or

variously grouped products as *a demand problem* (Col. 1, Line 66-Col. 2, Line 10). In

different words, the technique as discussed performs the claimed *employing a data*

mining technique for interrogating said demand and supply databases for generating an

output data stream, said output data stream correlating a demand problem with a supply

solution.

Regarding claim 14, Renslo teaches all the claim subject matters as discussed

above with respect to claim 13, Renslo further discloses *product supply resources*

comprise a compendium of at least one of product stockpile management solutions, product

stockpile information, and product stockpile diagnostics (FIG. 19, Lines 7-13).

Regarding claim 15, Renslo teaches all the claim subject matters as discussed above with respect to claim 13, Renslo further discloses *the data mining module is refined by analyzing pattern changes embedded in each data base* (Col. 7, Lines 47-50, and Col. 8, Lines 40-55).

Regarding claim 18, Renslo teaches all the claim subject matters as discussed above with respect to claim 15, Renslo further discloses *the output data stream is fed as a subsequent input to update at least one of the demand database, the supply database, and the data mining module* (Col. 3, Line 5-Col. 4, Line 6).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

6.   Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Renslo et al. [USP 5,446,890] in view of Lu et al. [Effective Data

Mining Using Neural Networks].

Regarding claims 8 and 16, Renslo teaches all the claim subject matters as

discussed above with respect to claims 1 and 13, but does not disclose the step of

employing neural networks as the data mining technique. Lu teaches the technique of using

neural networks for data mining (Lu, pages 957-961]. Therefore, it would have been

obvious for one of ordinary skill in the art at the time the invention was made to modify

the Renslo technique by using neural networks instead of knowledge base in order to

have better a better predict result.

7.   Claims 17 and 19-21 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Renslo et al. [USP 5,446,890] in view of Bieganski et al. [USP

6,412,012].

Regarding claims 17 and 19-21, Renslo teaches all the claim subject matters as

discussed above with respect to claim 13, but does not explicitly teach the step of

adding a product to a recommended product stockpile if the system determines there is a

match between a classification of a demand feature from the demand database and a classification of a demand feature from the supply database. Bieganski discloses *adding a product to a recommended product stockpile if the data mining technique determines there is a match between a classification of a demand feature from the demand database and a classification of a demand feature from the supply database* (Bieganski, Col. 4, Lines 65-67; Col. 5, Lines 1-4; Col. 6, Lines 13- 17; Col. 7, Lines 35-40; Col. 10, Lines 37-50). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the teachings of Renslo such that a product to a recommended product stockpile if the data mining technique determines there is a match between a classification of a demand feature from the demand database and a classification of a demand feature from the supply database in order to provide a system with the ability to recommend items based on the compatibility of a new item with items already on the recommendation list.
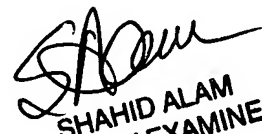
Conclusion

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 571-272-4040. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham
November 19, 2004

SHAHID ALAM
PRIMARY EXAMINER